(Date)

MODEL STATEMENT OF WORK FOR REMEDIAL ACTION OVERSIGHT

_____ SITE, _____ COUNTY, _____ STATE

ATTACHMENTS

Purpose of RA Oversight Model SOW

1. **To tell the contractor what EPA wants done.** This model SOW is for contractors to provide oversight of RAs being conducted by Potentially Responsible Parties (PRPs). Be as specific as possible in describing what the RA oversight contractor is required to do. In that way, the contractor will understand the requirements, will write a RA Oversight Work Plan and associated budget to meet those requirements, and will be ultimately responsible for satisfying those requirements. Whenever there is an absolute requirement (e.g., that the contractor prepare the Quality Assurance Project Plan (QAPP) in accordance with QAMS-005/80, December 29, 1980), state that requirement.

2. **To give the contractor a structure for recording costs.** A structured cost schedule will simplify cost comparisons of specific tasks being performed at similar RA oversight projects.

Use of Work Breakdown Structure (WBS)

1. A WBS was developed for this model SOW for the WAM/RPM to track the initial and final costs of each element and to share these data with other Federal agencies. The WBS is, essentially, the outline for this model SOW and is included as Attachment 2 to this document.

2. If an element is not to be used, **do not** change the numbering system, instead, insert "Not used" for that element number after deleting the text for that element.

3. For elements in the SOW for a given project, additional descriptions (e.g., type of samples and estimated number) should be added to the SOW for the contractor and WAM/RPM to develop estimated costs on a common basis.

8.0 Introduction

.0.1 Site Description

Provide a brief site description that contains information relative to RA oversight planning and implementation such as location, operational history, remedial response history, waste types, quantities, and milestones specified in the Record of Decision (ROD) and Remedial Design (RD) documents.

.0.2 Purpose

The purpose of this SOW is to provide the framework and requirements for the contractor to provide oversight of the construction and implementation of the RA, including system start-up and diagnostic testing, operation and maintenance, and performance monitoring, at _____ (site). Actual construction and implementation of the RA shall be performed by the PRP's constructor. The ROD issued on _____ (date) describes the RA selected for this site, and the RD documents provide the construction and implementation detail required to achieve the selected RA. The goal is to complete the RA by _____. The estimated completion date for this work assignment is _____.

Many contractors, subcontractors, and other participating team members will be involved in the completion of the RA. The WAM/RPM may consider identifying and defining each team member to avoid potential confusion. Upfront definitions will ensure that the names and titles of team members are used consistently throughout the completion of the RA, and that the roles and responsibilities of each team member are clear in the SOWs, project plans, and other critical project and contract documents.

For the purposes of this model SOW, the "**contractor**" is defined as the firm responsible for performing the SOW. The **contractor** is under contract with EPA to provide oversight of the "RA constructor," who is under contract with the PRPs. The **contractor** may be contracted through the Alternate Remedial Contracting Strategy (ARCS) or Remedial Action Contractor (RAC) contracting vehicles, but will not be performing RA construction or implementation tasks.

For a PRP-lead remediation project, it is likely that RD and RA would be performed by PRP constructors and contractors, with oversight provided by EPA contractors. This model SOW is written with the assumption that the **contractor** (providing RA oversight) is not the same as the contractor that provided RD oversight. If the same contractor is used, some of the tasks described in this model SOW could be modified or "Not used."

.0.2.1 Description of the RA

A brief description should include a summary of the general response objectives for the subject site, the selected RA described in the ROD to achieve those objectives, and a description of subsequent RD documents required for construction and implementation of the RA.

.0.2.2 Objectives of Oversight. The primary objective of PRP oversight is to ensure that the RA, as specified in the ROD and the RD documents, is accurately interpreted and adhered to during construction and implementation. The RA must protect public health and the environment during the life of the project and must comply with the terms of the Settlement Agreement or Consent Decree (CD). Successful RA oversight is accomplished by observing and documenting that the PRP has complied with all applicable laws, regulations, and requirements, and has met all performance standards specified in the CD.

.0.3 General Requirements

.0.3.1 The contractor shall perform RA oversight in accordance with this SOW and shall ensure consistency with the ROD, RD documents produced for the site, the CD, the *Remedial Design and Remedial Action Handbook* (U.S. EPA Office of Solid Waste and Emergency Response (OSWER) 9355.0-04B, EPA 540/R-95/059, June 1995) and other relevant guidance used by EPA in conducting RAs. The primary contact for this work assignment is _____, Tel. (___)_____; the secondary contact is _____, Tel. (___)_____.

.0.3.2 A summary of the major deliverables and the schedule for submittal is attached. See Attachment 1.

.0.3.3 Specifically, the RA involves the construction and implementation of _____ (briefly describe the major components of the RA).

.0.3.4 The contractor shall furnish all necessary and appropriate personnel, materials, and services needed, or incidental to, performing and completing the RA oversight.

.0.3.5 A list of primary guidance and reference material is listed in Attachment 2. In all cases, the contractor shall use the most recently issued guidance.

.0.3.6 The contractor shall maintain RA oversight files as specified in the contract and by the WAM/RPM.

.0.3.7 The contractor shall communicate at least weekly with the WAM/RPM, either in person or through conference calls, to report on RA oversight progress.

.0.3.8 The contractor shall notify the WAM/RPM when 75 percent and when 95 percent of the approved work assignment budget has been expended.

.0.3.9 The contractor shall document all decisions that are made in meetings and conversations with EPA or the PRP. The contractor shall forward this documentation to the WAM/RPM within 2 working days of the meeting or conversation.

Although the contractor is being tasked to document decisions made in meetings and conversations with EPA or the PRP, the WAM/RPM is ultimately responsible for documenting the decisions and should not solely rely on the contractor to do this.

.0.3.10 EPA will provide oversight of contractor activities throughout the RA oversight efforts. EPA review and approval of the contractor's deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment during the contractor's oversight of the PRP's remedial activities. EPA will review the deliverables prepared during the oversight to assess the likelihood that the RA will achieve its remediation goals and that all performance requirements applicable to the RA have been correctly identified and implemented. However, acceptance of deliverables by EPA does not relieve the contractor of responsibility for the adequacy of the deliverable.

.0.4 Oversight Official

The contractor shall designate an Oversight Official (i.e., the contractor's site manager responsible for the work assignment) to report directly to the WAM/RPM during RA oversight. The Oversight Official is the point-of-contact (POC) from the contractor, who acts as a liaison between the WAM/RPM, the PRP, the PRP's RA constructor, and the PRP's Independent QA Team. The Oversight Official is responsible for providing technical support in monitoring PRP compliance with the CD. Specific responsibilities of the Oversight Official include ensuring that the PRP is working with an Independent QA Team, assisting in the review of professional qualifications, reviewing RA submittals, and providing summary and activity reports to the WAM/RPM.

.0.5 Equipment Transfer

At the completion of the RA, or when government property is no longer required at the site, the contractor shall arrange for the proper disposition of government-furnished or contract-acquired property (purchased with contract funds) in accordance with the contract requirements. The disposition (transfer, sale, or abandonment) of government personal property and the tracking of such equipment shall be coordinated with the Contract Property Administrator. For additional information, refer to *Contractor's Guide for Control of Government Property*, Office of Administration and Resources Management, December 1988.

.0.6 Project Closeout

At the completion of the RA, the contractor shall perform all necessary project closeout activities as specified in the contract. These activities may include closing out any subcontracts, indexing and consolidating project records and files, and providing a technical and financial closeout report to EPA. Final costs shall be reported to EPA electronically, categorized by each cost element in the WBS.

8.1 Project Planning and Support

The purpose of this task is to plan for the execution and overall management of this SOW. Technical and management activities required to oversee the PRP's implementation of the RA, along with associated costs, are developed during the planning phase and are detailed in the contractor's RA Oversight Work Plan. Activities required for general work assignment management, including preparation of monthly progress report and invoices, that will occur throughout the duration of the project are included in this task. This task may begin before or after approval of the final RD and will continue through the RA oversight work assignment closeout.

.1.1 Project Planning

.1.1.1 Attend Scoping Meeting. The contractor shall attend a scoping meeting to be held at the EPA Regional Office before or concurrent with developing the contractor's RA Oversight Work Plan.

Location of meetings and the WAM/RPM's expectations for the number of contractor personnel to attend should be specified for cost estimation purposes. Consider having the RD oversight contractor, if different than the RA oversight contractor, attend initial meetings and site visits to present any special considerations and to facilitate the transfer of site and design information prior to the development of the RA Oversight Work Plan.

.1.1.2 Conduct Site Visit. The contractor shall conduct a one-day site visit with the WAM/RPM during the project planning phase to develop a conceptual understanding of the site and the RA scope and requirements. A Health and Safety Plan (HASP) is required for the site visit. The contractor shall prepare a letter report that documents all EPA, RA constructor, RA oversight contractor, and site personnel present at the visit, all decisions made during the visit, any action items assigned, including person responsible and due date, any unusual occurrences during the visit, and any portions of the site that were not accessible to the contractor and the impact of this on oversight of the RA. This report shall be submitted to the WAM/RPM within 10 calendar days of the site visit.

.1.1.3 Evaluate Existing Information. The contractor shall obtain, copy (if necessary), and review available information pertaining to the site from EPA. The contractor shall evaluate the existing data and documents, including the ROD, the CD, and the PRP's RA Work Plan, if available. The specific reference documents to be reviewed are listed in Attachment 3.

The WAM/RPM may want to specify that the contractor focus on the review of RD documents submitted by the PRP's RD contractor. The contractor should perform a relatively thorough review of final design documents to gain an understanding of the RA to be constructed and implemented at the subject site. A detailed review of earlier stages of design (i.e., review of preliminary and intermediate design documents, described under Task 6.7.1 in the WBS) would not likely be required of the RA oversight contractor.

In addition to providing the contractor with final design documents, the WAM/RPM may want to compile summaries contained in project reports to describe the nature and extent of contamination, cleanup goals and objectives, the selected RA, and critical aspects of the ongoing community relations program. The WAM/RPM could also provide reference documents for the selected RA, such as technology summaries and fact sheets.

.1.1.4 Develop Technical Project Goals and Objectives. The contractor shall prepare data needs and data quality objectives (DQOs) for analytical sampling to be performed during oversight. The goals and objectives should be used to define the analytical methods and protocols, decontamination procedures, and EPA reporting levels (e.g., I, II, III, IV) required to match those used by the PRP's RA constructor.

(1) Not used - Develop Conceptual Site Model

(2) Identify Preliminary Project Requirements
- (a) Data Needs and Data Quality Objectives
- (b) Not used - RA Objectives and Potential Alternatives
- (c) Not used - Possible Treatability Studies
- (d) Not used - ARARs and/or Standards
- (e) Not used - NEPA Requirements
- (f) Not used - Other Regulatory Requirements/Restrictions

The WAM/RPM should require the contractor to identify DQOs for the collection of samples during RA oversight. Other requirements and standards that may be applicable to the contractor's SOW should also be identified.

.1.1.5 Develop RA Oversight Work Plan

(1) Develop Draft RA Oversight Work Plan. The contractor shall prepare and submit a Draft RA Oversight Work Plan within 45 calendar days after initiation of the work assignment. The contractor shall use information from the EPA-approved PRP's RA Work Plan, if available, appropriate guidance, and direction provided by the WAM/RPM as the basis for preparing the RA Oversight Work Plan. RA oversight work must be coordinated and properly sequenced with EPA and PRP RA activities. Submit the original to the Contracting Officer, one copy to the Project Officer, and one copy to the WAM/RPM.

1. The WAM/RPM should verify the work plan submittal timeframe with the PO.

2. Additional copies of the work plan can be submitted to the WAM/RPM if specified, for distribution to other technical staff.

(a) Develop Narrative. The RA Oversight Work Plan shall include a comprehensive description of project tasks, the procedures to accomplish them, quality assurance/quality control (QA/QC) systems and project-specific QA/QC

procedures to be followed, project documentation, and project schedule. Specifically, the RA Oversight Work Plan shall include the following:

- Identification of RA project elements and the associated oversight tasks including review of PRP planning, construction, and implementation documentation. This task will result in a detailed breakdown of subtasks within the WBS tasks.
- The contractor's technical approach to each task to be performed, including a detailed description of each task, the assumptions used, the information needed for each task, any information to be produced during and at the conclusion of each task, and a description of the work products that will be submitted to EPA. Information shall be presented in a sequence consistent with the work breakdown structure format defined in the standard WBS.
- A schedule with specific dates for completion of each required activity and submission of each deliverable required by this SOW. This schedule shall also include information regarding timing, initiation, and completion of all critical path milestones for each activity and deliverable and the expected review time for EPA.
- A project communications and management plan and contractor reporting requirements, such as meetings and presentations to EPA at the conclusion of major phases of the project.

(b) Develop Cost Estimate. The contractor's estimated cost to complete the work shall be broken into Level of Effort (by P-level) and cost for each element of the Work Breakdown Structure (Attachment 2) and submitted to EPA on disk.

(c) Perform Internal QA and Submit Draft RA Oversight Work Plan

(2) Prepare Final RA Oversight Work Plan. The contractor shall prepare a Final RA Oversight Work Plan 15 days after receipt of EPA comments on the draft. This final version shall incorporate comments on the draft version as directed by the WAM/RPM.

(a) Attend Negotiation Meeting. The contractor shall attend a Work Plan negotiation meeting at the EPA Regional Office. EPA and the contractor will refine the SOW requirements and funding issues related to the RA Oversight Work Plan.

(b) Modify Draft RA Oversight Work Plan and Cost Estimate.

(c) Perform Internal QA and Submit Final RA Oversight Work Plan.

.1.1.6 Review PRP Plans. The contractor shall review upfront plans prepared by the PRP's RA constructor. These plans should constitute a complete set of construction-related work plans and project plans, based on generic guide specifications for construction.

The review of PRP plans under this task includes those plans which can be prepared prior to the preparation of detailed construction plans. The review of detailed construction plans is described in Task 6.7, "Review of PRP Documents." Generic guide specifications for construction may be used by the PRP's RA constructor to prepare these upfront PRP plans. The RA oversight contractor should recognize the preliminary level of detail that can be expected during their review of upfront plans.

(1) Review PRP Site Management Plan

(a) Review PRP Pollution Control & Mitigation Plan

(b) Review PRP Transportation and Disposal (of site-derived wastes) Plan

(2) Review PRP Health and Safety Plan

(3) Review PRP Sampling and Analysis Plan

(a) Review PRP Quality Assurance Project Plan

(b) Review PRP Field Sampling Plan

(c) Review PRP Data Management Plan

(4) Review Other PRP Plan(s)

.1.2 Preparation of Site-Specific Plans

The site-specific plans to be prepared by the contractor may consist of revisions or modifications to existing plans. If the RA oversight contractor was also the RD oversight contractor, this task should be abbreviated to reflect only revisions to existing plans. Similarly, if a new RA oversight contractor is being used, previous site plans can be provided by the WAM/RPM as examples to streamline this task.

.1.2.1 Not used

.1.2.2 Develop Health and Safety Plan (HASP) that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with 29 CFR 1910.120. Whenever possible, use the HASP developed for the RI/FS and/or RD oversight work assignments in preparing the HASP for RA oversight. Provisions in the RA constructor's HASP may also be incorporated into the contractor's HASP.

1. The HASP may not constitute an Emergency Response Plan. Site conditions may warrant the preparation of a separate Emergency Response Plan.

2. EPA does not approve the contractor's HASP, but reviews it to ensure that it is complete and adequately protective.

.1.2.3 Develop Sampling and Analysis Plan (SAP) or Chemical Data Acquisition Plan to reflect the specific objectives of data acquisition to be conducted during RA construction oversight. The SAP will outline the data collection and QA/QC requirements of sampling and analysis to be conducted by the contractor. The SAP may be composed of the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP) under separate covers, or it may be a single document, containing the essential elements of both the FSP and QAPP. The contractor shall use the SAPs prepared for the RI/FS and/or RD oversight portions of the project, whenever possible.

The Sampling and Analysis Plan (SAP) may not be required for certain RA oversight WAs. If required, the SAP can be prepared by updating the SAP prepared for the RD. The contractor may collect split (or duplicate) samples for laboratory analysis as samples are collected by the PRP's RA constructor. These split samples are collected under Task 6.5 to assess the quality of analytical results provided by the PRP. For a direct comparison, samples should be analyzed using the same analytical methods and EPA reporting levels as those used by the PRP's RA constructor.

(1) Develop Quality Assurance Project Plan in accordance with QAMS-005/80 (December 29, 1980). The QAPP shall describe the project objectives and QA/QC protocols to be used in achieving the desired DQOs. The DQOs shall, at a minimum, reflect use of analytical methods for identifying contamination and addressing contamination consistent with the levels for RA objectives identified in the National Contingency Plan (NCP). The selected analytical methods and reporting levels shall parallel those being used by the PRP's RA constructor.

(2) Develop Field Sampling Plan to define the oversight sampling and information-collection methods that shall be used for the project. It shall include sampling objectives, sample locations and frequency, sampling equipment and procedures, sample handling and analysis, and description of which samples are to be analyzed through the Contract Laboratory Program (CLP), which through other sources, and

the justification for those decisions. The FSP shall be written so that a field sampling team unfamiliar with the site would be able to gather the samples and field information required. The FSP developed for the RI/FS or RD oversight should be used whenever possible in preparing the FSP for the RA oversight activities.

(3) Develop Data Management Plan to address requirements for project management systems including tracking, storing, and retrieving data. The plan shall also identify software to be used, minimum data requirements, data format, and backup data management. The plan shall address both data management and document control for all RA oversight activities.

1.2.4 Other Plan(s)

.1.3 Project Management

1. The WAM/RPM should specify the format for submissions; e.g., Monthly Progress Reports, if there are Region-specific requirements or if you have specific requirements.

2. During construction, there may be especially active periods and the WAM/RPM should specify additional communication requirements or status reports from the contractor. Also, the WAM/RPM should arrange for personal visits to the site during these times.

.1.3.1 Prepare Periodic Status Reports. The contractor shall prepare Monthly Progress Reports.

(1) Document Cost and Performance Status. The contractor shall document the technical progress and status of each task in the WBS for the reporting period in accordance with contract requirements. The contractor shall report costs and level of effort (by P-level) for the reporting period as well as cumulative amounts expended to date.

(2) Prepare and Submit Invoices. Monthly invoices will be prepared and submitted in accordance with the level of detail as specified in the contract.

.1.3.2 Meeting Participation and Routine Communications. The contractor shall attend project meetings, provide documentation of meeting results, and shall contact the WAM/RPM by telephone on a weekly basis to report project status. The contractor shall notify the WAM/RPM immediately if inconsistencies with the design or non-compliance with the CD or applicable or relevant and appropriate requirements (ARARs) are apparent. The contractor shall describe the problem and provide recommended solutions in a technical memorandum to the WAM/RPM.

.1.3.3 Not Used - Maintain Cost/Schedule Control System.

.1.3.4 Not used - Perform Value Engineering

.1.3.5 Not used - Perform Engineering Network Analysis

.1.3.6 Not used - Manage, Track, and Report Equipment Status.

.1.3.7 Work Assignment Closeout. The contractor shall perform the necessary activities to closeout the work assignment in accordance with contract requirements.

.1.4 Subcontract Procurement and Support Activities

Other than a CLP laboratory, it is unlikely that the contractor will require subcontractors for RA oversight activities. A special laboratory may be desired in addition to a CLP laboratory to perform geotechnical testing or biologic parameter testing for certain sites. Using non-CLP laboratories should be considered on a case-by-case basis.

.1.4.1 Identify and Procure Subcontractors. The contractor shall identify, solicit, and award any subcontracts that are required to complete the RA oversight activities.

(1) Not used - Drilling Subcontractor
(2) Not used - Surveying Subcontractor
(3) Not used - Geophysical Subcontractor
(4) Not used - Site Preparation Subcontractor
(5) Analytical Services Subcontractor(s)
(6) Not used - Waste Disposal Subcontractor
(7) Not used - Treatability Subcontractor(s)
(8) Other(s)

.1.4.2 Develop Subcontractor QA/QC Program. The contractor shall review, approve, and monitor the subcontractor's QA/QC program and conduct audits, as required.

.1.4.3 Perform Subcontract Management. The contractor shall perform the necessary management and oversight of any subcontractor(s) needed for RA oversight. The contractor shall institute procedures, monitor progress, and maintain systems and records to ensure that the work proceeds according to contract requirements. The contractor shall review and approve subcontractors' invoices and issue any necessary contract modifications.

8.2 Community Relations

The contractor shall provide community relations support to EPA throughout the RA. The contractor shall provide community relations support in accordance with *Community Relations in Superfund: A Handbook*, June 1988. This task begins with the approval of the contractor's RA Oversight Work Plan and continues throughout the duration of the work assignment.

1. Generally, EPA retains responsibility for community relations during a PRP-lead RA. The CD may specify the level of PRP participation in these activities and the WAM/RPM should define the role of the contractor and the level of interaction with the PRP.

2. A variety of possible community relations activities may be appropriate during the RA, based on the characteristics and specific circumstances at your site. Refer to the *Community Relations in Superfund: A Handbook, Chapters 6 and 7 and Appendix A*, for suggested community relations activities during RA activities.

3. With implementation of the remedy, site activity increases and so does the likelihood of community concerns and questions. In addition to the community relations activities listed below in the WBS, the WAM/RPM may consider the following activities to communicate progress during construction: arranging site tours and workshops, establishing observation decks, and videotaping cleanup activities. These activities may be covered under Task 6.2.3.1, "Technical Support," or added to the WBS as a separate item and numbered accordingly (i.e., 6.2.3.5). The WAM/RPM should plan for and develop a proactive and effective program with the assistance of the Regional Community Relations Specialist.

4. The WAM/RPM should review the current community relations plan, if one exists, and direct the contractor to update the existing CRP to address activities and concerns specific to the RA.

5. The WAM/RPM should specify the format for Community Relations submissions (e.g., fact sheets, news releases) if there are EPA Region-specific or other requirements.

.2.1 Develop Community Relations Plan

.2.1.1 Conduct Community Interviews. The contractor shall assist the WAM/RPM in conducting community interviews to identify community concerns associated with the RA. The contractor shall assist the WAM/RPM in identifying key community members, establishing an interview schedule, conducting interviews, and summarizing the results.

.2.1.2 Update the CRP. The contractor shall update the existing CRP to address community relations requirements and community concerns during the RA.

(1) Draft CRP. The contractor shall update the CRP and submit a draft version within 14 days after completion of the community interviews.

(2) Final CRP. Within 7 days of receipt of EPA comments, the contractor shall submit a final CRP.

.2.2 Prepare Fact Sheets

The contractor shall assist the WAM/RPM in preparing a fact sheet that informs the public about activities related to the final design, the schedule for the RA, activities to be expected during construction, measures to be taken to protect the community, provisions for responding to emergency releases and spills, and any potential inconveniences such as excess traffic and noise that may affect the community during the RA.

1. This subtask may have been completed during the RD. In that case, the WAM/RPM may task the contractor to revise the fact sheet before construction begins with the current schedule, expected conditions, and relevant points of contact.

2. Depending on the complexity of the RA, the WAM/RPM should consider communicating construction progress by sending out regular fact sheets. Specify to the contractor the anticipated number of fact sheets, topics, and number of copies required.

.2.3 Public Meetings and Availability Support

The number and locations of anticipated public meetings should be identified in the SOW for cost estimation purposes. Similarly, the WAM/RPM should specify the number of contractor personnel expected to be in attendance at the public meetings.

.2.3.1 Technical Support. The contractor shall assist the WAM/RPM in providing technical support for community meetings that may be held during the RA. This support may include preparing technical input to news releases, briefing materials, arranging other community relations vehicles (i.e., site tours), and helping the WAM/RPM to coordinate with local agencies.

.2.3.2 Logistical and Presentation Support. The contractor shall assist the WAM/RPM in preparing technical briefing materials and in arranging for the logistical details for the meetings.

.2.3.3 Public Notice Support. The contractor shall assist the WAM/RPM in drafting public notices, announcing the public meetings, and placing the notice in a local paper of general circulation.

.2.4 Maintain Information Repository and Mailing Lists

The contractor shall assist the WAM/RPM in developing or revising site mailing lists and maintaining a repository of information on activities related to RA, as described in Appendix A.8, page A-19, of *Community Relations in Superfund: A Handbook*, June 1988.

8.3 Data Acquisition Oversight

This task involves oversight of the PRP's collection of samples during the RA. The review of the PRP's project plans required for this sampling effort is performed under Task 6.1.1.6. This task begins with EPA's approval of the PRP's SAP, FSP, and QAPP prior to the PRP's mobilization, and ends with the PRP's demobilization at the completion of the RA.

Mobilization and demobilization oversight includes ensuring that the PRP's RA constructor and their subcontractors efficiently perform start-up and closeout field activities per the overall schedule in the CD. The RA oversight contractor should monitor site preparation and the construction of utilities and temporary facilities, and ensure that an appropriate work sequence is followed while minimizing site disturbances. A logical sequence for major mobilization and demobilization activities to be conducted by the RA constructor may be as follows:

Mobilization
- stage and organize equipment and materials onsite
- prepare exclusion zone, decontamination area, and waste storage/staging area
- construct utilities and temporary facilities

Daily Demobilization
- consolidate and store debris and excess materials
- decontaminate personnel and equipment
- maintain secure waste storage/staging area

Final Demobilization
- dismantle utilities and temporary facilities that are no longer required
- ensure site has minimum disturbances (i.e., remove trash, debris, excess materials)
- properly label waste stored/staged onsite, and ensure that provisions are in-place for its removal

.3.1 Mobilization and Demobilization Oversight

.3.1.1 Identify Field Support Equipment/Supplies/Facilities. The contractor may require a field trailer and related utilities if it is infeasible to share the RA constructor's trailer. Other support equipment, supplies, or facilities required for performing oversight activities should be identified in this task.

.3.1.2 Mobilization Oversight. Mobilization activities to be conducted by the PRP's constructor include preparing an exclusion zone, staging and organizing onsite equipment, and constructing utilities and temporary facilities.

(1) Not used - Site Preparation
(2) Installation of Utilities
  (a) Install Electric Distribution
  (b) Install Telephone/Communication System
  (c) Install Water/Sewer/Gas Distribution
  (d) Install Fuel Line Distribution
(3) Construction of Temporary Facilities
  (a) Construct Decontamination Facilities
  (b) Construct Sample or Derived Waste Storage Facility
  (c) Construct Field Offices
  (d) Construct Mobile Laboratory
  (e) Construct Other Temporary Facilities

.3.1.3 Demobilization Oversight. Demobilization activities to be conducted by the PRP's constructor include consolidating and storing materials, decontaminating personnel and equipment, and maintaining a secure waste storage/staging area.

(1) Removal of Temporary Facilities
(2) Site Restoration

.3.2 Perform Field Investigation Oversight. Field activities that require oversight include site reconnaissance, data acquisition of air, groundwater, surface water, and other environmental media

samples, as well as the characterization, management and disposal of investigation-derived wastes (IDW). The contractor shall ensure the proper collection and management of samples acquired by the PRP, including accurate chain-of-custody (COC) procedures for sample tracking, protective sample-packing techniques, and proper sample-preservation techniques. Ensure that the PRP characterizes and disposes of investigation-derived wastes in accordance with local, State and Federal regulations as specified in the FSP (see the Fact Sheet *Guide to Management of Investigation-Derived Wastes*, 9345.3-03FS, January 1992).

The WAM/RPM should specify the expected written and/or photographic documentation to be recorded in the field. The WAM/RPM also should specify the type of field activity reports expected by the WAM/RPM, the frequency, and the required distribution (WAM/RPM, State representative, etc.).

.3.2.1 Perform Site Reconnaissance Oversight
- (1) Ecological Resources Reconnaissance
- (2) Well Inventory
- (3) Residential Well Sampling
- (4) Land Survey
- (5) Topographic Mapping
- (6) Field Screening

.3.2.2 Perform Geological Investigations Oversight - Soils and Sediments

.3.2.3 Perform Air Investigations Oversight

.3.2.4 Perform Hydrogeological Investigations Oversight - Groundwater
- (1) Well Systems Installation
- (2) CLP Sample Collection
- (3) Screening Sample Collection. A screening sampling event can consist of temporary sampling points to estimate the approximate distribution and range of contaminant concentrations. CLP sampling can then be performed after the screening event to confirm specific concentrations. Screening techniques include temporary piezometers, well points, and direct push technology (DPT) sampling techniques such as piezocones, resistivity cones, groundwater samplers, and soil gas samplers.
- (4) Tidal Influence Study
- (5) Hydraulic Tests (Pump Tests)
- (6) Groundwater Elevation Measurement

.3.2.5 Perform Hydrogeological Investigations Oversight - Surface Water

.3.2.6 Perform Waste Investigation Oversight

.3.2.7 Perform Geophysical Investigation Oversight

.3.2.8 Perform Ecological Investigation Oversight

.3.2.9 Perform Contaminated Building Samples Oversight

.3.2.10 Perform Disposal of Investigation-Derived Wastes Oversight

.3.2.11 Prepare Data Acquisition Oversight Reports

8.4 Analysis of Split Samples

.4.1 Perform Screening-type Laboratory Sample Analysis

The contractor shall request appropriate analytical services to match those being used by the PRP's RA constructor. Using the same level of analysis will provide the data required to perform an accurate quality comparison. The contractor should reference the procedures outlined in the *User's Guide to the Contract Laboratory Program*, EPA, December 1986. Frequently, the PRP's RA constructor will use EPA Level II analytical reporting using non-CLP methods for this task; the RA oversight contractor should use the same level of analysis.

.4.1.1 Analyze Air and Gas Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.1.2 Analyze Groundwater Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.1.3 Analyze Surface water Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.1.4 Analyze Soil and Sediment Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.1.5 Analyze Waste (Gas) Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.1.6 Analyze Waste (Liquid) Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.1.7 Analyze Waste (Solid) Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.1.8 Analyze Biota Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.1.9 Analyze Bioassay Samples

.4.1.10 Perform Bioaccumulation Studies

.4.2 Perform CLP-type Laboratory Sample Analysis

The contractor shall request appropriate analytical services to match those being used by the PRP's RA constructor. Using the same level of analysis will provide the data required to perform an accurate quality comparison. The contractor should reference the procedures outlined in the *User's Guide to the Contract Laboratory Program*, EPA, December 1986. Typically, the PRP's RA constructor will be using EPA Level IV analytical reporting using CLP methods for this task; the RA oversight contractor should use the same level of analysis.

.4.2.1 Analyze Air/Gas Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.2.2 Analyze Groundwater Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.2.3 Analyze Surface water Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.2.4 Analyze Soil and Sediment Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.2.5 Analyze Waste (Gas) Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.2.6 Analyze Waste (Liquid) Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.2.7 Analyze Waste (Solid) Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.2.8 Analyze Biota Samples
- (1) Organic
- (2) Inorganic
- (3) Radiochemistry

.4.2.9 Analyze Bioassay Samples

.4.2.10 Perform Bioaccumulation Studies

8.5 Analytical Support and Data Validation of Split Samples

The contractor shall collect split (or duplicate) samples of samples collected by the PRP's RA constructor, and shall arrange for the analysis and validation of those samples. The contractor's split samples are to be compared to samples collected by the PRP's RA constructor to assess the validity of the RA constructor's sampling program. The sample collection, analysis, and validation task begins with reserving sample slots in the CLP, and ends with the contractor's data validation letter report.

1. Sample collection procedures, analytical methods, and EPA reporting levels for the contractor's split samples should be consistent with the procedures, methods, and levels being used by the PRP's RA constructor.

2. For RA oversight purposes, full data validation procedures are usually not necessary. The WAM/RPM may want to specify the level of data validation required.

3. The WAM/RPM should specify the format for submissions if there are Region-specific or other requirements.

.5.1 Prepare and Ship Environmental Samples. The contractor shall properly collect and manage split samples in the field, and arrange for appropriate shipment to the designated laboratory. The contractor shall follow the procedures specified in the contractor's SAP, FSP, QAPP, and HASP for proper sample preservation and protective sample packing, and then ship via an overnight carrier to the designated laboratory.

.5.1.1 Groundwater Samples
.5.1.2 Surface and Subsurface Soil Samples
.5.1.3 Surface water and Sediment Samples
.5.1.4 Air Samples
.5.1.5 Biota Samples
.5.1.6 Other Types of Media Samples

.5.2 Coordinate With Appropriate Sample Management Personnel. The contractor shall arrange shipment and delivery schedules with the appropriate sample management personnel and provide any clarification on the data collection procedures that may be required.

.5.3 Implement EPA-Approved Laboratory QA Program. The contractor shall ensure the QA/QC protocols, as specified in the QAPP, are followed.

.5.4 Provide Sample Management (COC, sample retention, and data storage). The contractor shall follow accurate COC procedures for sample tracking.

.5.5 Perform Data Validation. The contractor shall perform appropriate data validation to ensure that the data are accurate and defensible. The contractor shall review the appropriate laboratory data packages according to the protocols specified in the contractor's RA Oversight Work Plan and complete the necessary summary tables, validation worksheets, and DQO summary forms. The contractor shall prepare and submit a data validation letter report within 21 calendar days of receipt of the analytical results.

.5.5.1 Review Analysis Results Against Validation Criteria
.5.5.2 Provide Written Documentation of Validation Efforts

8.6 Data Evaluation of Split Samples

This task involves comparison of the PRP's data that is collected during the RA with data resulting from the analysis of split samples collected by the contractor during RA oversight. Data evaluation begins with the receipt of analytical data from the data acquisition task and ends with the submittal of a Data Evaluation Summary Report. Specifically, the contractor shall compare, evaluate, interpret, and tabulate data in an appropriate presentation format for final data tables.

1. The WAM/RPM should specify the format for submissions if there are Region-specific or other requirements.

2. The WAM/RPM should specify that the contractor prepare and submit a Technical Memorandum to the WAM/RPM if new analytical data needs or significant data problems are identified during the evaluation.

.6.1 Data Useability Evaluation and Field QA/QC. The contractor shall review the data collected and the QA/QC protocols to evaluate if the data are appropriate for the intended use.

.6.2 Data Reduction, Tabulation, and Evaluation. The contractor shall evaluate, interpret, and tabulate data in an appropriate presentation format for analysis. The contractor shall design and set up an appropriate database for pertinent information collected that will be used to validate the RA. Data management should be performed according to the contractor's Data Management Plan.

.6.2.1 Evaluate Geological Data - Soils and Sediments
.6.2.2 Evaluate Air Data
.6.2.3 Evaluate Hydrogeological Data - Groundwater
.6.2.4 Evaluate Hydrogeological Data - Surface Water
.6.2.5 Evaluate Waste Data
.6.2.6 Evaluate Geophysical Data
.6.2.7 Evaluate Ecological Data

.6.3 Modeling. The contractor shall perform limited and focused computer modeling of data (e.g., air monitoring data) to facilitate data evaluation and interpretation.

.6.3.1 Contaminant Fate and Transport
.6.3.2 Water Quality
.6.3.3 Groundwater
.6.3.4 Air
.6.3.5 Other Modeling

.6.4 Develop Data Evaluation Report. The contractor shall evaluate and present results in a Data Evaluation Summary Report to submit to the WAM/RPM for review and approval. The report will include a comparison between the contractor's split sample data and the PRP's data, will provide an assessment of this comparison, and will identify any actions required. After the WAM/RPM's review, attend a meeting with EPA to discuss data evaluation results and next steps.

8.7 Review of PRP Documents

Task 6.1.1.6 in the WBS is "Review of PRP Plans," which is intended to include the review of upfront, generic project plans, such as the SAP, FSP, QAPP, and HASP. This task (Task 6.7) is intended to include the review of updates, amendments, or modifications to the upfront plans, as well as the review of detailed construction plans, specifications, and related submittals.

This task involves work efforts to review detailed construction plans and related documents prepared by the PRP's RA constructor. In addition to the review of project plans (e.g., SAP, FSP, QAPP, HASP) under Task 6.1.1.6, the RA oversight contractor shall perform reviews as directed by the WAM/RPM. The following factors are to be considered during the review of PRP submittals:

- Technical requirements of the ROD, Unilateral Administrative Order (UAO), Administrative Order of Consent (AOC), CD, and compliance with ARARs
- Standard professional engineering practices
- Applicable statutes, EPA policies, directives and regulations
- Spot checking design calculations to assess accuracy and quality of design activities
- Examination of planning and construction schedules for meeting project completion goals

The contractor shall review the planning, construction, and implementation documentation as directed by the WAM/RPM to ensure professional quality, technical accuracy, and compliance with the ROD and CD, CERCLA guidance, and ARARs. Specific documents to be reviewed include the PRP's RA Work Plan, Construction QAPP (CQAP), cut sheets, material lists, equipment lists and specifications, operation and maintenance plans, and updates or modifications to the upfront project plans (e.g., SAP, FSP, QAPP, HASP).

.7.1 Not used - Review of PRP Remedial Design Documents

Task 6.7.1 in the WBS is "Review PRP Remedial Design Documents." Because RD documents should be provided to the contractor to review under Task 6.1.1.3, this task is not likely to be required.

.7.2 Review of PRP Remedial Action Documents. The contractor's review of PRP documents should be focused on the technical and engineering aspects of the detailed construction-related submittals. Letter reports shall be submitted upon the completion of each review by the contractor within 21 calendar days of the start of the review, identifying specific issues and suggested revision or other action.

.7.2.1 Site Management for Construction
.7.2.2 PRP's Remedial Action Work Plan
.7.2.3 O&M Manual
.7.2.4 Remedial Action Report
.7.2.5 As-build Drawings
.7.2.6 Construction QAPP
.7.2.7 Construction QA Reports

8.8 Remedial Action Oversight

This task is intended to include general field oversight of the PRP's RA constructor during construction and implementation of the RA. This task is separate from other field tasks to be performed under the SOW (e.g., mobilization/demobilization oversight and data collection oversight). Field observations, recordings, photographs, and other compliance-related oversight activities are to be performed under this task.

This task includes work efforts to provide technical field oversight of PRP RA activities to ensure that construction and implementation is performed in accordance with RD plans, specifications, and the CD. Oversight activities include observing and recording compliance with specific aspects of project plans and design documents, photographing major field activities, maintaining a daily field notebook, and providing reports to the WAM/RPM. The contractor's Oversight Official should coordinate with the PRP's Independent QA Team and communicate and report to the WAM/RPM according to an agreed-upon schedule.

.8.1 On-site Oversight of Construction

The WAM/RPM must define the appropriate level of oversight needed. For example, will oversight be continuous over a long period or are short visits appropriate, will overnight stays be required, and is one person adequate to oversee the whole RA?

.8.2 Periodic RA Oversight Reports

The appropriate frequency and level of detail must be specified (i.e., whether the reports are to be weekly or periodic, whether the content is to be short and informal or very detailed).

.8.3 Participation in Remedial Action Meetings

.8.3.1 EPA Regional Office Meeting
.8.3.2 On-site Meetings

8.9 Technical Meeting Support

This task includes work efforts related to attendance at and documentation of meetings with EPA, PRPs, PRP constructors and contractors, and state and local regulatory agencies. The contractor shall attend meetings and provide documentation of meeting results. Within 7 days after a meeting, the contractor will submit to the WAM/RPM a written report summarizing the meeting results. Meetings may be scheduled to coincide with the following specific milestones during the RA:

- Review of PRP RA Work Plan
- PRP preconstruction conference
- Technical progress meetings between the PRP constructor and the Independent QA Team
- Kick-off, progress, and completion of any confirmatory (split) sampling
- Prefinal/final inspections

8.10 Work Assignment Closeout

.10.1 Return Documents to Government

.10.2 Duplicate, Distribute, and Store Files

.10.3 Archive Files

.10.4 Prepare Microfiche, Microfilm, and/or Optical Disk

.10.5 Prepare Closeout Report. The contractor shall include a breakdown on disk of final costs and Level of Effort (by P-level) in the same detail and format as the Work Breakdown Structure (Attachment 2).

ATTACHMENT 1
SUMMARY OF MAJOR DELIVERABLES FOR THE REMEDIAL ACTION OVERSIGHT AT _____(SITE)

TASK	DELIVERABLE	REF NO.	NO. OF COPIES	DUE DATE (Calendar Days)	EPA REVIEW PERIOD
1.1.2	Site Visit Letter Report		3	10 days after site visit	7 days after receipt of report
1.1.5	Draft RA Oversight Work Plan		3	45 days after initiation of work assignment (WA)	30 days after receipt of work plan
1.1.5	Final RA Oversight Work Plan		3	15 days after receipt of EPA comments	NA
1.1.6	Draft Technical Memoranda Summarizing Review of Upfront PRP Plans		3	30 days after initiation of WA	14 days after receipt of memoranda
1.1.6	Final Technical Memoranda Summarizing Review of Upfront PRP Plans		3	10 days after receipt of EPA comments	NA
1.2.2	Draft Health and Safety Plan (HASP)		3	21 days after approval of RA Work Plan	14 days after receipt of plan
1.2.2	Final HASP		3	10 days after receipt of EPA comments	NA
1.2.3	Draft Sampling and Analysis Plan (SAP)		3	21 days after approval of RA Work Plan	14 days after receipt of plan
1.2.3	Final SAP		3	10 days after receipt of EPA comments	NA
1.3.1	Status Reports		3	Monthly and as directed by WAM	NA
1.3.2	Technical Memoranda Summarizing Meeting Results, Project Status, and Non-Compliance Issues		3	As required	NA
2.1.2	Draft Community Relations Plan (CRP)		3	14 days after completion of community interviews	7 days after receipt of draft CRP
2.1.2	Final CRP		3	7 days after receipt of EPA comments	NA

5.5	Data Validation Letter Report		3	21 days after receipt of analytical results from laboratory	NA
6.4	Draft Data Evaluation Summary Report		3	45 days after receipt of analytical results from laboratory	14 days after receipt of report
6.4	Final Data Evaluation Summary Report		3	7 days after receipt of EPA comments	NA
7.2	Draft Letter Report Summarizing Review of PRP RA Documents		3	21 days after receipt of PRP document from EPA	14 days after receipt of letter report
7.2	Final Letter Report Summarizing Review of PRP RA Documents		3	10 days after receipt of EPA comments	NA
8.2	Draft RA Oversight Reports		3	As required	As required
8.2	Final RA Oversight Reports		3	7 days after receipt of EPA comments	NA
9.0	Draft Technical Memoranda Summarizing Meeting Results		3	7 days after attendance at meeting(s)	10 days after receipt of memoranda
9.0	Final Technical Memoranda Summarizing Meeting Results		3	7 days after receipt of EPA comments	NA

Attachment 2
Work Breakdown Structure (WBS) for
Remedial Action Oversight

8.0 Remedial Action Oversight

.01 Project Planning and Support

.01 Project Planning
- .01 Attend Scoping Meeting
- .02 Conduct Site Visit
- .03 Evaluate Existing Information
- .04 Develop Technical Project Goals & Objectives
  - .01 Not Used - Develop Conceptual Site Model
  - .02 Preliminary ID of Project Requirements
    - .01 Data Needs & DQOs
    - .02 Not Used - RA Objectives & Potential Alternatives
- .05 Work Plan Development
  - .01 Draft Work Plan Development
    - .01 Develop Narrative
    - .02 Develop Cost Estimate
    - .03 Internal QA & Submission
  - .02 Final Work Plan Preparation
    - .01 Attend Negotiation Meeting
    - .02 Modify Draft Work Plan/Cost Estimate
    - .03 Internal QA & Submission
- .06 Review of PRP Plans
  - .01 Review PRP Site Management Plan
    - .01 Review PRP Pollution Control and Mitigation Plan
    - .02 Review PRP Transportation and Disposal Plan
  - .02 Review PRP Health and Safety Plan
  - .03 Review PRP Sampling & Analysis Plan
    - .01 Review PRP Quality Assurance Project Plan
    - .02 Review PRP Field Sampling Plan
    - .03 Review PRP Data Management Plan
  - .04 Other PRP Plan(s)

.02 Preparation of Site Specific Plans
- .01 Not used
- .02 Develop Health & Safety Plan
- .03 Sampling & Analysis Plan (Chemical Data Acquisition Plan)
  - .01 Quality Assurance Project Plan
  - .02 Field Sampling Plan
  - .03 Data Management Plan
- .04 Other Plan(s)

.03 Project Management
- .01 Prepare Periodic Status Reports
  - .01 Document Cost and Performance Status
  - .02 Prepare/Submit Invoices
- .02 Meeting Participation/Routine Communications
- .03 Not Used - Maintain Cost/Schedule Control System
- .04 Not Used - Perform Value Engineering
- .05 Not Used - Perform Engineering Network Analysis
- .06 Not Used - Manage, Track, and Report Equipment Status
- .07 Work Assignment Closeout

.04 Subcontract Procurement/Support Activities
- .01 ID and Procurement of Subcontractors

.01 Not Used - Drilling Subcontractor
.02 Not Used - Surveying Subcontractor
.03 Not Used - Geophysical Subcontractor
.04 Not Used - Site Preparation Subcontractor
.05 Analytical Services Subcontractor(s)
.06 Not Used - Waste Disposal Subcontractor
.07 Not Used - Treatability Subcontractor(s)
.08 Other(s)
.02 Contractor QA/QC Program
.03 Perform Subcontract Management

.02 Community Relations

.01 Community Relations Plan (CRP) Development
.01 Conduct Community Interviews
.02 Update CRP
.01 Draft CRP
.02 Final CRP
.02 Prepare Fact Sheets
.03 Public Hearing, Meetings, & Availability Support
.01 Technical Support
.02 Logistical & Presentation Support
.03 Public Notice Support (writing, or placement of)
.04 Maintain Information Repository/Mailing List

.03 Data Acquisition Oversight

.01 Mobilization/Demobilization Oversight
.01 ID Field Support Equipment/Supplies/Facilities
.02 Mobilization
.01 Not Used - Site Preparation
.02 Installation of Utilities
.01 Install Electrical Distribution
.02 Install Telephone/Communication System(s)
.03 Install Water/Sewer/Gas Distribution
.04 Install Fuel Line Distribution
.03 Construction of Temporary Facilities
.01 Construct Decontamination Facilities
.02 Construct Sample/Derived Waste Storage Facility
.03 Construct Field Offices
.04 Construct Mobile Laboratory
.05 Construct Other Temporary Facilities
.03 Demobilization Oversight
.01 Removal of Temporary Facilities
.02 Site Restoration

.02 Field Investigation Oversight
.01 Site Reconnaissance Oversight
.01 Ecological Resources Reconnaissance
.02 Well Inventory
.03 Residential Well Sampling
.04 Land Survey
.05 Topographic Mapping
.06 Field Screening
.02 Geological Investigations (Soils/Sediments) Oversight
.03 Air Investigations Oversight
.04 Hydrogeological Investigations Oversight - Groundwater
.01 Well Systems Installation
.02 CLP Sample Collection
.03 Screening Sample Collection

.04 Tidal Influence Study
.05 Hydraulic Tests (Pump Tests)
.06 Groundwater Elevation Measurement
.05 Hydrogeological Investigations Oversight — Surface Water
.06 Waste Investigation Oversight
.07 Geophysical Investigation Oversight
.08 Ecological Investigation Oversight
.09 Contaminated Building Samples Oversight
.10 Disposal of Investigation-Derived Waste Oversight
.11 Prepare Data Acquisition Oversight Reports

.04 Sample Analysis of Splits

.01 Screening Type Laboratory Sample Analysis
.01 Analyze Air/Gas Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.02 Analyze Groundwater Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.03 Analyze Surface Water Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.04 Analyze Soil/Sediment Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.05 Analyze Waste (Gas) Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.06 Analyze Waste (Liquid) Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.07 Analyze Waste (Solid) Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.08 Analyze Biota Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.09 Analyze Bioassay Samples
.10 Perform Bioaccumulation Studies
.02 CLP-Type Laboratory Sample Analysis
.01 Analyze Air/Gas Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.02 Analyze Groundwater Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.03 Analyze Surface Water Samples
.01 Organic
.02 Inorganic

.03 Radiochemistry
.04 Analyze Soil/Sediment Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.05 Analyze Waste (Gas) Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.06 Analyze Waste (Liquid) Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.07 Analyze Waste (Solid) Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.08 Analyze Biota Samples
.01 Organic
.02 Inorganic
.03 Radiochemistry
.09 Analyze Bioassay Samples
.10 Perform Bioaccumulation Studies

.05 Analytical Support and Data Validation of Split Samples
.01 Prepare and Ship Environmental Samples
.01 Groundwater Samples
.02 Surface and Subsurface Soil Samples
.03 Surface Water & Sediment Samples
.04 Air Samples
.05 Biota Samples
.06 Other types of media sampling and screening
.02 Coordinate with appropriate Sample Management personnel
.03 Implement EPA-approved Laboratory QA program
.04 Provide Sample Management (Chain of Custody, sample retention, & data storage)
.05 Perform Data Validation
.01 Review analysis results against validation criteria
.02 Provide written documentation of validation efforts

.06 Data Evaluation of Split Samples
.01 Data Useability Evaluation/Field QA/QC
.02 Data Reduction, Tabulation and Evaluation
.01 Evaluate Geological Data (Soils/Sediments)
.02 Evaluate Air Data
.03 Evaluate Hydrogeological Data—Groundwater
.04 Evaluate Hydrogeological Data—Surface Water
.05 Evaluate Waste Data
.06 Evaluate Geophysical Data
.07 Evaluate Ecological Data
.03 Modeling
.01 Contaminant Fate and Transport
.02 Water Quality
.03 Groundwater
.04 Air
.05 Other Modeling
.04 Develop Data Evaluation Report

.07 Review of PRP Documents

.01 Not Used - Review PRP Remedial Design Documents

.01 Not Used - Review Preliminary Design
.02 Not Used - Review Intermediate Design
.03 Not Used - Review Pre-Final/Final Design

.02 Review PRP Remedial Action Documents

.01 Site Management Plan for Construction
.02 Remedial Action Work Plan
.03 O&M Manual
.04 Remedial Action Report
.05 As Built Drawings
.06 Construction QAPP
.07 Construction QA Reports

.08 Remedial Action Oversight

.01 On-Site Oversight of Construction
.02 Periodic RA Oversight Reports
.03 Participation in Remedial Action Meetings
.01 Region Office Meetings
.02 On-Site Meetings

.09 Technical Meeting Support

.10 Work Assignment Close Out

.01 Return Documents to Government
.02 File Duplication/Distribution/Storage
.03 File Archiving
.04 Microfiche/Microfilm/Optical Disk
.05 Prepare Closeout Report

Attachment 3
Regulations and Guidance Documents

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RD process:

1. American National Standards Practices for Respiratory Protection. American National Standards Institute Z88.2-1980, March 11, 1981.
2. ARCS Construction Contract Modification Procedures September 89, OERR Directive 9355.5-01/FS.
3. CERCLA Compliance with Other Laws Manual, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, August 1988 (DRAFT), OSWER Directive No. 9234.1-01 and -02.
4. Community Relations in Superfund — A Handbook, U.S. EPA, Office of Emergency and Remedial Response, June 1988, OSWER Directive No. 9230.0-3B.
5. A Compendium of Superfund Field Operations Methods, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.
6. Construction Quality Assurance for Hazardous Waste Land Disposal Facilities, U.S. EPA, Office of Solid Waste and Emergency Response, October 1986, OSWER Directive No. 9472.003.
7. Contractor Requirements for the Control and Security of RCRA Confidential Business Information, March 1984.
8. Data Quality Objectives for Remedial Response Activities, U.S. EPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/540/G-87/003, March 1987, OSWER Directive No. 9335.0-7B.
9. Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, U.S. EPA Region IV, Environmental Services Division, April 1, 1986 (revised periodically).
10. EPA NEIC Policies and Procedures Manual, EPA-330/9-78-001-R, May 1978, revised November 1984.
11. Federal Acquisition Regulation, Washington, DC: U.S. Government Printing Office (revised periodically).
12. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, U.S. EPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive NO. 9355.3-01.
13. Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potential Responsible Parties, U.S. EPA Office of Emergency and Remedial Response, EPA/540/G-90/001, April 1990.
14. Guidance on Expediting Remedial Design and Remedial Actions, EPA/540/G-90/006, August 1990.
15. Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, U.S. EPA Office of Emergency and Remedial Response (DRAFT), OSWER Directive No. 9283.1-2.
16. Guide for Conducting Treatability Studies Under CERCLA, U.S. EPA, Office of Emergency and Remedial Response, Prepublication version.
17. Guide to Management of Investigation-Derived Wastes, U.S. EPA, Office of Solid Waste and Emergency Response, Publication 9345.3-03FS, January 1992.
18. Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Research and Development, Cincinnati, OH, QAMS-004/80, December 29, 1980.
19. Health and Safety Requirements of Employees Employed in Field Activities, U.S. EPA, Office of Emergency and Remedial Response, July 12, 1982, EPA Order No. 1440.2.
20. Interim Guidance on Compliance with Applicable of Relevant and Appropriate Requirements, U.S. EPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.
21. Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Emergency and Remedial Response, QAMS-005/80, December 1980.
22. Methods for Evaluating the Attainment of Cleanup Standards: Vol. 1, Soils and Solid Media, February 1989, EPA 23/02-89-042; vol. 2, Ground water (Jul 1992).
23. National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, Federal Register 40 CFR Part 300, March 8, 1990.
24. NIOSH Manual of Analytical Methods, 2nd edition. Volumes I-VII for the 3rd edition, Volumes 1 and II, National Institute of Occupational Safety and Health.
25. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute of Occupational Safety and Health/Occupational Health and Safety Administration/United States Coast Guard/Environmental Protection Agency, October 1985.

26. Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, February 19, 1992, OSWER Directive 9355.7-03.
27. Procedure for Planning and Implementing Off-Site Response Actions, Federal Register, Volume 50, Number 214, November 1985, pages 45933-45937.
28. Procedures for Completion and Deletion of NPL Sites, U.S. EPA, Office of Emergency and Remedial Response, April 1989, OSWER Directive No. 9320.2-3A.
29. Quality in the Constructed Project: A Guideline for Owners, Designers and Constructors, Volume 1, Preliminary Edition for Trial Use and Comment, American Society of Civil Engineers, May 1988.
30. *Remedial Design/Remedial Action (RD/RA) Handbook*, U.S. EPA, Office of Solid Waste and Emergency Response (OSWER) 9355.0-04B, EPA 540/R-95/059, June 1995.
31. Revision of Policy Regarding Superfund Project Assignments, OSWER Directive No. 9242.3-08, December 10, 1991. [Guidance, p. 2-2]
32. Scoping the Remedial Design (Fact Sheet), February 1995, OSWER Publ. 9355-5-21 FS.
33. Standard Operating Safety Guides, U.S. EPA, Office of Emergency and Remedial Response, November 1984.
34. Standards for the Construction Industry, Code of Federal Regulations, Title 29, Part 1926, Occupational Health and Safety Administration.
35. Standards for General Industry, Code of Federal Regulations, Title 29, Part 1910, Occupational Health and Safety Administration.
36. Structure and Components of 5-Year Reviews, OSWER Directive No. 9355.7-02, May 23, 1991. [Guidance, p. 3-5]
37. Superfund Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties, April 1990, EPA/540/G-90/001.
38. Superfund Remedial Design and Remedial Action Guidance, U.S. EPA, Office of Emergency and Remedial Response, June 1986, OSWER Directive No. 9355.0-4A.
39. Superfund Response Action Contracts (Fact Sheet), May 1993, OSWER Publ. 9242.2-08FS.
40. TLVs-Threshold Limit Values and Biological Exposure Indices for 1987-88, American Conference of Governmental Industrial Hygienists.
41. Treatability Studies Under CERCLA, Final. U.S. EPA, Office of Solid Waste and Emergency Response, EPA/540/R-92/071a, October 1992.
42. USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, U.S. EPA, Office of Emergency and Remedial Response, July 1988.
43. USEPA Contract Laboratory Program Statement of Work for Organic Analysis, U.S. EPA, Office of Emergency and Remedial Response, February 1988.
44. User's Guide to the EPA Contract Laboratory Program, U.S. EPA, Sample Management Office, August 1982.
45. Value Engineering (Fact Sheet), U.S. EPA, Office of Solid Waste and Emergency Response, Publication 9355.5-03FS, May 1990.

Attachment 4

TRANSMITTAL OF DOCUMENTS FOR ACCEPTANCE BY EPA		DATE:	TRANSMITTAL NO.
TO:	FROM:		☐ New Transmittal ☐ Resubmittal of Transmittal No. _____

SUBTASK NO.	DELIVERABLE	NO. OF COPIES	REMARKS

ACCEPTANCE ACTION

DOCUMENTS FOUND ACCEPTABLE (LIST BY SUBTASK NO.)	NAME/TITLE/SIGNATURE OF REVIEWER DATE

Attachment 5

TRANSMITTAL REGISTER								
PROJECT TITLE AND LOCATION				CONTRACT NO.			WORK ASSIGNMENT NO.	
Subtask No.	DELIVERABLE	No. of Copies	Due Date	Transmittal No.	Date Received	Date Comments Sent to Contractor	EPA Acceptance Date	REMARKS